Claims

What is claimed is:

1. A hood positioning apparatus for a hood of a vehicle of the type having a frame, comprising:

at least one fluid powered actuator coupled to the hood and the frame; and

a circuit in communication with said actuator and structured and arranged to control said actuator.

2. The hood positioning apparatus as set forth in claim 1 further comprising a backup power device in fluid communication with said actuator.

3. The hood positioning apparatus as set forth in claim 2 wherein said backup power device comprises a manually actuated pumping device.

4. The hood positioning apparatus as set forth in claim 1 wherein said circuit comprises an electro-hydraulic circuit.

5. The hood positioning apparatus as set forth in claim 1 wherein said circuit comprises at least one flow control device in fluid communication with said actuator.

6. The hood positioning apparatus as set forth in claim 1 wherein said actuator is a hydraulic cylinder.

7. The hood positioning apparatus as set forth in claim 1 wherein:

said actuator is a hydraulic cylinder having a rod end and a cap end; and

said circuit comprises a flow control device in fluid communication with at least one of said rod end and said cap end.

8. The hood positioning apparatus as set forth in claim 7 wherein said circuit further includes a flow prevention device in fluid communication with one of said cap end and said rod end and actuatable to decrease said fluid pressure in said cap end or said rod end in response to pressure.

9. The hood positioning apparatus as set forth in claim 7 wherein said flow control device comprises a flow prevention portion.

10. The hood positioning apparatus as set forth in claim 7 wherein said flow control device comprises a flow metering portion.

11. The hood positioning apparatus as set forth in claim 1 wherein:

said actuator comprises a rod end coupled to the hood, and a cap end coupled to the frame;

said circuit comprises a first flow control device in fluid communication with said rod end;

said circuit comprises a second flow control device in fluid communication with said cap end; and

said circuit further includes a flow prevention device in fluid communication with both said cap end and said rod end and actuatable to decrease said fluid pressure in said cap end in response to fluid pressure at said rod end.

12. The hood positioning apparatus as set forth in claim 11 wherein said flow prevention device comprises a pilot operated check valve.

13. A method of positioning a hood of a vehicle of the type having a frame, comprising the steps of:

providing at least one fluid powered actuator coupled to the hood at an attachment point and coupled to the frame; and

providing a circuit coupled to the fluid powered actuator and structured and arranged to control said actuator to perform at least one of raise and lower of said hood.

14. The method as set forth in claim 13 further comprising the steps of:

providing an attachment point of the hood with the frame; and

providing said circuit with a flow control device structured and arranged to control the rate of movement of the hood when said center of gravity of the hood passes over said attachment point.

15. The method as set forth in claim 13 further comprising the step of providing a backup power device structured and arranged to manually control said actuator.

16. The method as set forth in claim 15 wherein said backup power device comprises a manual pumping device.

17. The method as set forth in claim 13 further comprising the steps of:

placing said circuit in at least one of a raise, lower or neutral position;

wherein said actuator has an end for receiving an amount of pressure thereby raising the hood when said circuit is placed in said raise position; and

wherein said end substantially maintains said pressure when said circuit is placed in said neutral position.

18. The method as set forth in claim 17 wherein said pressure in said end decreases when said circuit is placed in a lower position.